Delta Independent Science Board Educational Briefing Questionnaire

Please provide short written responses to the following:

1. Program Title: Ecosystem Restoration Program

2. Lead Agency/Department for Program: The Department of Fish & Game (DFG) is the Implementing Agency for the State; U.S. Fish & Wildlife Service and NOAA Fisheries are the Implementing Agencies for the Federal government.

3. Brief Description of Program: The Ecosystem Restoration Program (ERP) was established as part of the multi-agency CALFED Bay-Delta Program. ERP is intended to improve and increase aquatic and terrestrial habitats and improve ecological functions within the San Francisco Bay and Delta to support sustainable populations of diverse plant and animal species, through the issuance of restoration grants. Over the past seventeen years, ERP has awarded approximately 600 restoration grants in the Bay-Delta and associated tributaries in the Sacramento and San Joaquin Valleys.

4. Purpose and Objectives of Program: The goal of ERP is to improve and increase aquatic and terrestrial habitats and improve ecological functions in the Bay-Delta to support sustainable populations of diverse and valuable plant and animal species.

5. Timeline for Program Objectives: Stage 1 of the ERP ended in 2007; Stage 2 is scheduled to end in 2030.

6. Current Status of Program: Ongoing. ERP currently manages approximately 80 ongoing grants totaling over $162,000,000.00. A solicitation for Proposals was recently completed which will add an additional 15 projects totaling $19,066,675.00 to ERP. Additionally ERP's Stage 2 Conservation Strategy has been posted for public comment and is currently undergoing review by the Federal Implementing Agencies; this document will refocus ERP's efforts on the Delta and its tributaries and will identify potential restoration actions which may be implemented over the remainder of the Program's life.

7. Contact Information for Lead Staff of this Program:

Name	David S. Zezulak, Ph.D.
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8. Associated Total Annual Budget for Program: The average annual budget for ERP over the last five years has been approximately $45M; funded through Propositions 204, 50, 84, and 13.

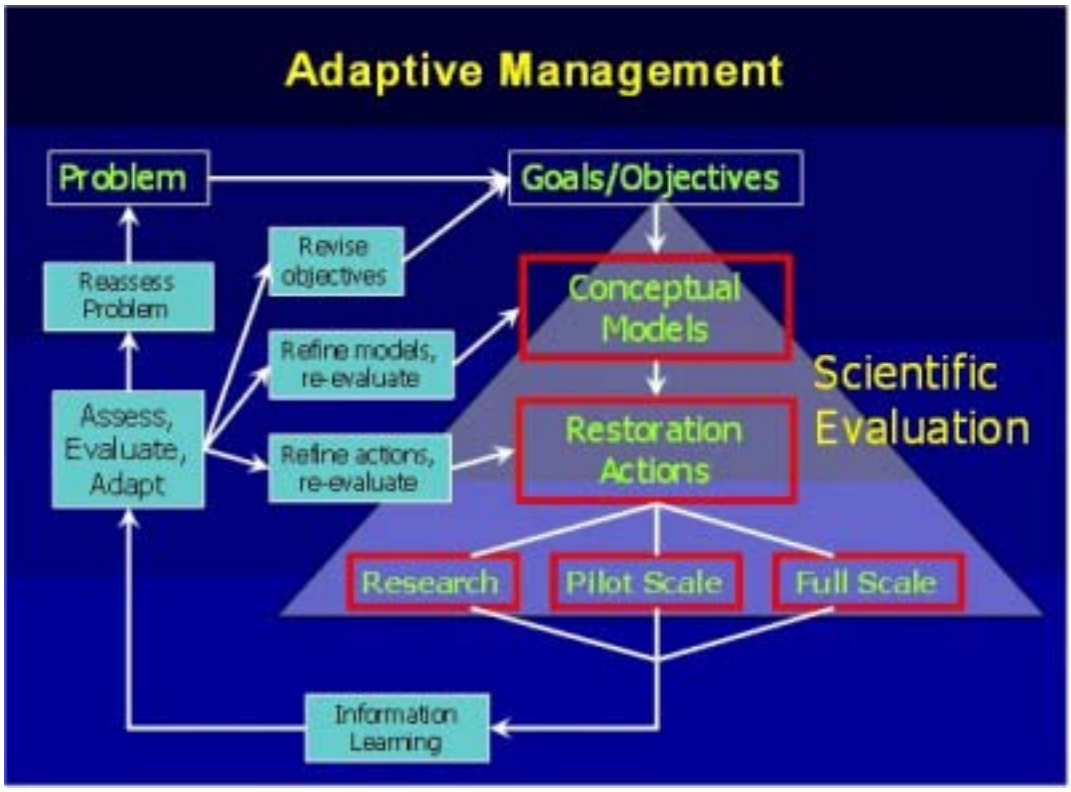
9. URL, if a Website is Available: www.dfg.ca.gov/water/erp/

10. How does adaptive management play a role in your program? Adaptive management is fundamental to the measure of success and the identification of future restoration and research needs for the ERP. Expressed in DFG's ERP Conservation Strategy is an adaptive management framework (graphic and info from link at end of questionnaire) that anticipates additional ecosystem enhancement components will be developed if ongoing ecosystem restoration implementation efforts are not achieving desired objectives for species recovery or habitat restoration. This is done by including numerous assessments and feedback loops to ensure that management decisions are based on the best and most current information. Additionally, and in support of continuing to develop and evaluate this

framework, DFG coordinates with the Delta Science Program, Delta Stewardship Council, and with our Interagency Ecological Program partners to embrace a common approach to adaptive management.

11. Any additional information that would be helpful to understand the program:

Thank you very much for taking the time to respond to this questionnaire. Please return your completed questionnaire to Gina Ford (gina.ford@deltacouncil.ca.gov) no later than October 6, 2011.



This figure shows how knowledge gained from research, pilot studies and implementation can be used to revise restoration management strategies.

DRERIP has used the best available knowledge, in the form of conceptual models, to document a common understanding of the Delta ecosystem. This understanding forms the basis of the adaptive management approach.

The DRERIP Delta Planning Tools were developed by the Adaptive Management Planning Team.

Action-Oriented

Adaptive management is an action-oriented approach to resource management.

Adaptive management played a central role in the process of designing the DRERIP conceptual models and the scientific evaluation process.

Monitoring

When habitat and species are restored, scientists will monitor natural resource indicators. This monitoring data can be used to assess, evaluate and adapt.

By using data in this way, over the long-term, uncertainty will be reduced.

onitoring data helps managers understand how the system responds and how actions can be refined to improve resource management over time.

Cyclical Process

Adaptive management is an *iterative* (cyclical) process. As new knowledge is gained, the conceptual models will be updated. Management actions will be adjusted to reflect the new knowledge.

In this sense, the science represented by the conceptual models is never "finalized" and will be available for future updates.